FACILITY PLANNING AND DESIGN SAFETY PROCESS

POLICY. Naval Facilities Engineering Command will use system safety engineering during acquisition of facilities and equipment over which it has responsibility. Design safety programs shall comply with the OPNAVINST 3500.39 Operational Risk Management five step process, ensure that all customer safety and health needs are identified, special controls are understood and designed into each facility project. Lack of required safety features cause delays, increased project costs and injury potential. Compliant safety and health plans and designs will reduce Navy infrastructure costs.

APPLICABILITY. System safety engineering shall be used (1) during the planning and execution of projects for research, development, test and evaluation, (2) during acquisition of special equipment or existing equipment undergoing major design changes, and (3) during the planning and design of facilities construction projects.

PROCESS. A list of customer special safety and health concerns shall be obtained. The designer (A/E, in-house, or Public Works) should conduct its own analyses to assure hazards including confined spaces, ergonomics, fall hazards, energy sources, hazardous materials, etc., are identified, risk evaluated, and engineering controls provided. Designs should minimize hazards to maintenance personnel as well as operators and employees. For complex or high hazard facilities, the designer should prepare a Safety Assessment Report per Mil-Std 882 (DI-SAFT-80102A). The safety assessment report shall identify all customer requested controls, residual unsafe design characteristics, quantify risk of hazards not eliminated, and identify any controls, inhibits, or safety procedures. Whenever possible the designer should try to include safety features to minimize construction safety hazards.

FACILITY SYSTEM SAFETY WORKING GROUPS (FSSWG).

OPNAVINST 5100.23 requires activity Commanders, Commanding Officers and Officers in Charge to establish a FSSWG to review facility designs for new military construction projects to ensure hazards are identified and controlled. The FSSWG is a planning and design process tool to link customer safety and health needs to the designer via NAVFAC safety engineers

FSSWGs should include the activity safety manager, industrial hygienist, environmental engineer, planner, user, and the NAVFAC EFD/EFA safety engineer, as well as any other discipline needed based on the project. The FSSWG should develop a list of hazardous operations that are of concern and review the control methods that will be used. The EFD/EFA safety engineer will assist in developing the list of customer safety and health concerns and coordinate with the FSSWG to determine adequacy of controls. The EFD/EFA safety engineer will ensure that appropriate design safety reviews are conducted and recommendations/ comments are provided to the EFD/EFA project engineer and A/E as appropriate. The FSSWG should also participate in pre-acceptance facility walk-through inspections.

REFERENCES: Title 29, CFR Part 1910 Occupational Safety Health Standards for General Industry; OPNAVINST 5100.23 (current series) NAVY OCCUPATIONAL SAFETY AND HEALTH PROGRAM MANUAL; OPNAVINST 3500.39 Operational Risk Management; MIL STD 882 (current series) System Safety.